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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,185	12/31/2003	Sue K. DeNise	MMI-0101 (14972.105003)	5843
20786	7590	02/25/2009	EXAMINER	
KING & SPALDING				
1180 PEACHTREE STREET, NE				
ATLANTA, GA 30309-3521				
			ART UNIT	PAPER NUMBER
			1637	
			MAIL DATE	DELIVERY MODE
			02/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/750,185

Applicant(s)

DENISE ET AL.

Examiner

Molly E. Baughman

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-35 and 40-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-35 and 40-51 is/are rejected.
- 7) ☒ Claim(s) 52 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/14/08: 12/15/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's amendments to claims 24, 35, 43, and 45; and addition of claims 52-53 in the reply filed on 10/9/08 is acknowledged.
2. Claims 24-35, and 40-53 are currently pending and under examination.

Response to Arguments

3. Applicant's arguments, see pg. 5, filed 10/9/08, with respect to rejection of claims 24-25 and 33-51 under 35 USC § 112, first paragraph (written description), have been fully considered, but are not found persuasive. The applicants argued that since the claims have been amended to be limiting to the sequences identified by the Examiner, it overcomes the rejection. This is not found persuasive, because while the applicants have removed the phrase, "the region less than about 500,000 nucleotides from...", and therefore, have limited the polynucleotide to bind to a region selected from position 300 of SEQ ID NO:20614, applicants have also amended the claim to include that the polynucleotide is now capable of binding to a SNP selected also from position 300 of SEQ ID NO: 23124, 47083, 47087, 47089, 47091, 47093, 47096, 47098, 47102, and 47105. The applicants do not have description in the specification of any SNPs located at position 300 of any of these sequences. SEQ ID NO:23124 is described in the specification as an extension primer which binds 1 nucleotide adjacent to position 300 in SEQ ID NO:20614 (see Table 1A and 1B), and therefore does not comprise any SNP. The sequence does not even comprise 300 nucleotides. SEQ ID NO: 47083, 47087,

47089, 47091, 47093, 47096, 47098, 47102, and 47105 are described as contigs in the specification. The specification describes SEQ ID NO:19473-21982 as sequences which are located within contigs SEQ ID NO:24493-64886. Therefore, the instant SEQ ID NO:20614 is located within a contig of SEQ ID NO:24493-64886. It is not described as being within any of SEQ ID NO: 47083, 47087, 47089, 47091, 47093, 47096, 47098, 47102, and 47105, where the tables only state that these contigs are within 500,000 nucleotides of the SNP located at position 300 of SEQ ID NO:20614. The specification does not describe any SNPs at position 300 of these contigs, let alone such SNPs being associated with a trait.

Additionally, the applicants have not described what is meant by "*adjacent* to a SNP position located in a region selected from..." (emphasis added). The specification only describes adjacent in terms of "adjacent markers," which describes such a term as within 0.5 cM. Therefore, it is unclear how this is still limited to an extension primer which binds to SEQ ID NO:20614, let alone one that binds to SEQ ID NO:20614 within a few nucleotides of position 300. The specification only describes SEQ ID NO: 23124 as an extension primer that binds within 1 nucleotide of nucleic acid residue 300 of SEQ ID NO:20614, and does not describe any other extension primers. As such, this rejection is maintained.

4. Applicant's arguments, see pgs. 5-6, filed 10/9/08, with respect to rejection of claims 24-25 and 33-51 under 35 USC § 112, first paragraph (enablement), have been fully considered, but are not found persuasive. Applicants argued that since the claims

have been amended to be limiting to the sequences identified by the Examiner, it overcomes this rejection. This is not found persuasive, because while the applicants have removed the phrase, "the region less than about 500,000 nucleotides from....," and therefore, have limited the polynucleotide to bind to a region selected from position 300 of SEQ ID NO:20614, applicants have also amended the claim to include that the polynucleotide is now capable of binding to a SNP selected also from position 300 of SEQ ID NO: 23124, 47083, 47087, 47089, 47091, 47093, 47096, 47098, 47102, and 47105. The applicants are not enabling for SNPs located at position 300 of such sequences, as stated above, let alone such SNPs being associated with any traits. The specification provides no examples and does not even mention any SNPs located at such positions, and therefore, does not provide any data which would enable one of skill in the art to reasonably conclude that such SNPs were associated with any traits. Additionally, the applicants have not limited the extension primer to one that is capable of binding only to SEQ ID NO:20614 as it is unclear what is meant by "*adjacent* to a SNP position located in a region selected from..." (emphasis added). The specification only describes adjacent in terms of "adjacent markers," which describes such a term as within 0.5 cM. Therefore, the claims still read on an extension primer which is capable of binding to a target sequence that is well outside of SEQ ID NO:20614, and as described previously, applicants have not adequately described the position of SEQ ID NO:20614 within the bovine genome where one of skill in the art could reasonably covey where such a primer binds. As such, the applicants are not enabled for such an extension primer, which binds anywhere "adjacent" to this SNP.

5. Applicant's arguments, see pg. 6, filed 10/9/08, with respect to rejection of claims 24-25, 33-35, and 40-51 under 35 U.S.C. 112, second paragraph, have been fully considered and are persuasive. The rejection of claims 24-25 and 33-35 has been withdrawn.

6. Applicant's arguments, see pgs. 6, filed 10/9/08, with respect to rejection of claim 35 under 35 USC § 112, first paragraph (written description), have been fully considered, but are not found persuasive. Applicants argue that since the claim has been amended to recite "90th percentile," instead of "99th percentile," it overcomes the rejection. While this is persuasive for the SNP located at position 300 of SEQ ID NO:20614, applicants have also amended claim 24 to include that the polynucleotide is now capable of binding to a SNP selected also from position 300 of SEQ ID NO: 23124, 47083, 47087, 47089, 47091, 47093, 47096, 47098, 47102, and 47105. As stated above under the first written description rejection, applicants have no support for SNPs located at position 300 of any of these newly added sequences, let alone such SNPs being associated with a bovine subject having a value for tenderness that is within at least 90th percentile of the bovine population for tenderness.

New Grounds of Rejection Necessitated by Amendment

Claim Objections

7. Claim 53 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is

required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 53 is drawn to an extension primer which is capable of binding to a SNP position at nucleic acid residue 300 of SEQ ID NO:20614, however, claim 24 is only drawn to extension primers which are capable of binding adjacent to a SNP position and does not include those which bind to this position. As such, this claim includes limitations which were not previously included and is not further limiting.

Summary

8. No claims are in condition for allowance. Claim 52 is free of the prior art, however, it is objected to as it depends from rejected claims.
9. Any remaining rejections and/or objections not addressed above are withdrawn in view of the amendments and/or arguments.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Molly E. Baughman whose telephone number is (571)272-4434. The examiner can normally be reached on Monday-Friday 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth R Horlick/
Primary Examiner, Art Unit 1637

/Molly E Baughman/
Examiner, Art Unit 1637